

**REMARKS****I. INTRODUCTION**

Claims 1 - 3, 9, 15 and 19 were previously canceled. Thus, claims 4 - 8, 10 - 14 and 16 - 18 are pending in the present application. The Specification has been amended. No new matter has been added. In view of the above amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

**II. THE OBJECTION TO THE CLAIMS SHOULD BE WITHDRAWN**

Claims 4, 10, and 16 stand objected to because of an informality. (See 9/18/07 Office Action, ¶ 3). Specifically, claims 4, 10, and 16 include the recitation of a "Neuro Fuzzy Inference Machine." However, the Specification recites a "Neuro Fuzzy Interference Machine." The originally filed PCT application WO 01/18755 includes a "Neuro Fuzzy *Inference* Machine" and was mistranslated into the Specification for the present application. The Specification has been amended to recite "inference" where the translation incorrectly recites "interference." In view of the amendments to the Specification and the "Neuro Fuzzy Inference Machine" being defined therein, it is respectfully requested that this objection be withdrawn.

**III. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claims 4 - 8, 10 - 14, and 16 - 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application No. 2002/0120559 to O'Mara et al. ("O'Mara") in view of U.S. Patent No. 6,658,393 to Basch et al. ("Basch"). (See 9/18/07 Office Action, ¶ 8).

O'Mara describes a method for identifying merchant risk by performing tiered processing which includes a first level process identifying a first subset of merchants for review, a second

level process collecting additional information for the first subset of merchants, and a third level process using the first subset of merchants and the additional information so as to identify a second subset of merchants requiring further review. (See O'Mara, Abstract).

Basch describes financial risk prediction techniques that employ scoreable transactions as input data to assess the level of financial risk of a particular account and/or account holder. (See Basch, col. 5, lines 6 - 19). A financial risk predication system (FRPS) assesses the level of financial risk pertaining to an account and/or account holder based on scoreable transactions, which are scored against predictive models within the FRPS to generate financial risk scores and/or financial risk alerts. (See Id. at col. 6, lines 56 - 63). Transaction data includes historical and current authorizations from a transaction authorization system. (See Id. at col. 8, lines 13 - 15). Model cubes that are part of a predictive model may be implemented as RAM-cached multi-dimensional databases of summarized dimensional data and metadata that supports the predictive model. (See Id. At col. 12, lines 20-23).

Claim 4 recites that "former transactions are buffered in a ring buffer." A ring buffer storing a brief history of former transactions enables real time treatment of authorization requests, polling and analysis of past transactions. The ring buffer includes a fixed number of places switched in series so that a newly stored object is pushed into the ring buffer "at the front," thus advancing all objects already present in the ring buffer in each case by one position: (See Specification, p. 15, ¶ [0070]). Accordingly, an object in the last place completely falls out of the ring buffer. (See Id.). That is, only a finite amount of data relating to former transactions is stored in the ring buffer. Furthermore, as time dictates the data in the ring buffer, the data is also related to a finite period of time where the period is equal to a time from the last place to a time from the first place.

It is respectfully submitted that neither O'Mara nor Basch, either alone or in combination, disclose or suggest a ring buffer. O'Mara relates to analysis of transactions that have already occurred. Thus, a ring buffer would not be useful, nor does O'Mara ever suggest that a ring

buffer should be included. Basch teaches that the FRPS periodically receives historical and current transaction data. (See Basch, col. 8, lines 30 - 38). No mention or suggestion is made regarding a ring buffer. Rather, the FRPS relies only on available inputs in order to create predictive models. (Id. at col. 9, lines 20 - 35).

Basch states that a scoreable transaction is scored against previously created predictive models. (Id.). The Examiner states that the ring buffer of claim 1 is equivalent to a RAM cached database disclosed in Basch. (See 9/18/07 Office Action, p. 4, lines 1-2). The Examiner further states that the RAM cached database functions as a buffer information in series, or first-in-first-out. (See Id. at lines 3-4). Finally, the Examiner discusses how the RAM cached database is used for real-time processing. (See Id. at lines 4-7). Although Basch may use data for real-time processing (which Applicants do not concede), the data of past transactions is not stored in a ring buffer. Specifically, it is respectfully submitted that the Examiner misinterpreted the RAM cached database as implemented in Basch. Basch discloses that the RAM cached database is multi-dimensional. More importantly, the multi-dimensional databases of the RAM cached database is of *summarized* dimensional data. That is, data stored in the RAM-cached multi-dimensional database would always be relevant as the data of a particular dimension is summarized. Accordingly, a first-in-first-out scheme is *not* the case with the database of Basch. The summarized data would pertain to every inputted data for a particular dimension. In contrast, as discussed above, the ring buffer recited in claim 1 relates to a finite amount of data *and* a finite period of time. Specifically, when a new item is placed into the ring buffer and an oldest item is removed from the ring buffer, a starting time (corresponding to the last place in the ring buffer) is updated. A summarized data would not have this feature as the starting time is static (corresponding to the oldest item or the first item to ever be placed in the database for a particular dimension).

Based on the reasons discussed above, it is respectfully submitted that neither O'Mara nor Basch, either alone or in combination, disclose or suggest that "former transactions are buffered in a ring buffer," as recited in claim 4. Because claims 5 - 8 depend from, and, therefore include

the limitations of claim 4, it is respectfully submitted that these claims are also allowable.

Claims 10 and 16 also recite that "former transactions are buffered in a ring buffer." Thus, it is respectfully submitted that claim 10, claim 16, and all claims depending therefrom (claims 11 - 14 and 17 - 18) are allowable for the same reasons as claim 4.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the now pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, and an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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